R Digital Sterilizer
Operation Manual

European N Class

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Dear Customer

1. We appreciate your confidence to our products and hopes that the performances of the equipment are full of satisfaction.
2. Please read the instructions of this manual carefully in order to install the equipment and operate the equipment in an efficient manner.
3. Please according to operation regulations and keeping the sterilizer in a good maintenance.
4. Please contact franchiser if you confront with problem when operate the machine, we ensure quality service and customer support to you.
5. We implement the sustainable developmental strategy. Therefore we reserve the right to make changes and improvements to any of the products described in this manual without prior notice.
6. The sterilizer is a device intended for sterilization of non-wrapped, wrapped and packed instruments, porous loads, and hollow instruments. This device is designed for use in first aid rooms, dental clinics, operation rooms veterinary clinics, pharmaceutics industry, removal of medical waste, laboratories etc.
7. The most efficient sterilization of microorganisms is performed in an environment in which the temperature, the humidity and the process time are controlled and monitored in the adequate levels.
8. The sterilizer fulfils these conditions. The dry saturated steam in the chamber provides the temperature and humidity (the pressure enables maintaining the required temperature and humidity simultaneously)

DECLARATION OF CONFORMITY

The content of this instruction is fit for sterilizers.
Above sterilizers accord with the requirements of European Class N:

93/42/CEE
97/23/CEE
EN13060:2004
EN610610-1
EN610610-2-041
EN610610-2-040

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1. EXPLAINS OF SYMBOL

1.1 RECOMMENDATIONS-SAFETY

The purpose of this user manual is to provide you with all the information you need in order to ensure.

A proper installation and set-up
Optimal use
A safe and reliable operation
Regular and correct servicing requirements

1.2 CONFORM USE

he sterilizer must be used only for the purpose for which it was intended: the steam sterilization of solids, textiles and hollow items unwrapped, single or double Wrapped.

This symbol draws attention to the user manual.

To disregard the instruction which are explained, the incorrect use and the unauthorized disassembly of the sterilizer that indicates the manufacturer, we do not have the responsibility for warranty and any other claims.

This symbol is visible side cover of the water tank and on the front of the panel after opening up the door.

It draws attention to pay on the high temperatures Associated with the chamber, and the sterilizer steam draining from the cover when it is running.

This symbol is grounding protection inside the sterilizer.

2. GENERAL RECOMMENDATIONS SAFETY

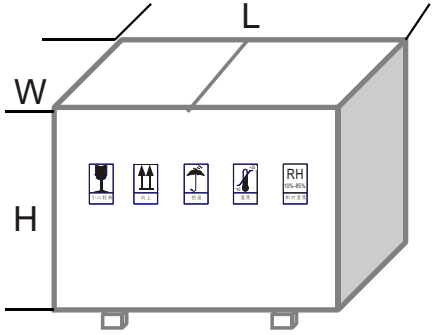
1 The user is responsible for operation and servicing the sterilizer in accordance with the instructions listed in this manual.
2 The sterilizer has not been designed for the sterilization of liquids.
3 The sterilizer has not been designed to operate in the presence of gas or explosive vapors.
4 The trays and the load will still be hot at the end of each cycle. Use the tray holder to remove each tray from the chamber.
5 Do not open the door of the chamber when you are running the sterilization programs.
6 Do not put you hands or face on the cover of the water tank when the sterilizer is Running.
7 Do not remove the instruction plate or any label from the sterilizer.
8 Do not pour water or any other liquid over the sterilizer.
9 Do not fill the caustic liquid into the water tank.
10 Do not fill the caustic matter in the chamber.
11 Use only high quality distilled water.
12 Unplug the mains lead before inspecting or servicing the machine.
13 Only an approved technician using original spare parts can carry out repairs and Maintenance.
14 In case of transport, drain both water tanks completely, allow the sterilization chamber to cool down and preferably use the original packaging.
15 The goods to be sterilized could be picked-up by special handle of getting plate when the temperature shows under 100℃.
16 Picking-up the sterilizing plate should use the special handle provided by this sterilizer.
17 During the transport, the 4 bottoms of sterilizer should be raised by two men in case of turning over.
18 Notice! This product can't be put on the place that is not easy to cut off power supply.
19 Prohibit covering the cover of water tank when using.

Caution: Comply with the instructions in this manual for ensure safe operation. If user don't operate according to the instruction, the security of product In the process of use will greatly be reduced. And we won't refund the kickback.

3. UNPACKING

The sterilizer, the accessories, the user manual and the warranty card are supplied in a sturdy box.
Check the condition of the packaging on receipt. Contact the carrier immediately and inform your supplier if the outer packaging is damaged.

3.1 UNPACKING THE sterilizer



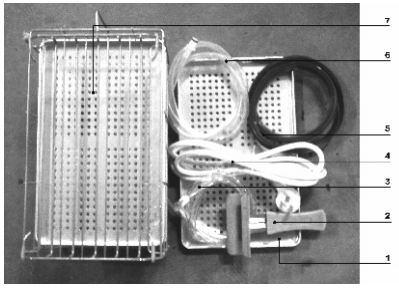
12/18liters
L*W*H=633*500*437(mm)
23liters
L*W*H=743*500*437(mm)

3.2 UNPACKING THE ACCESSORIESSQA

Open the door and remove the accessories from the sterilization chamber.

Check the contents:

NO: 1	Anodized aluminum trays	3 sets
NO: 2	Tray removal tong	1 piece
NO: 3	Draining tube	1 piece
NO: 4	Power supply cable	1 piece
NO: 5	Door gasket	1 piece
NO: 7	Tray holder	1 piece
NO: 8	Operation manual	1 book



4. SET-UP

4.1 INSTALLATION

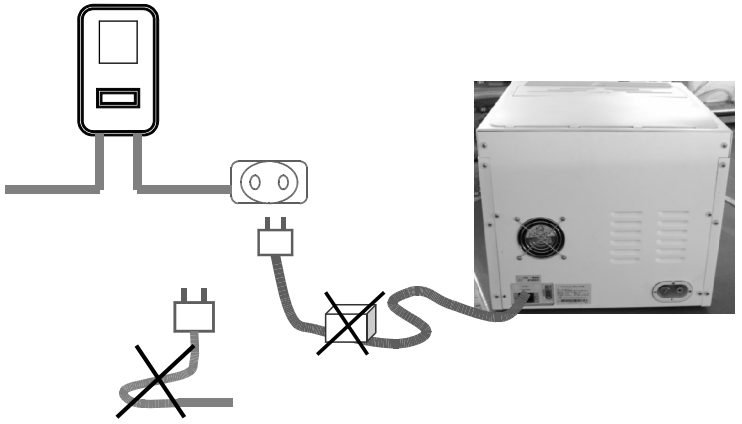
The sterilizer has been calibrated and tested in the factory. It does not require calibration during installation.

Install the sterilizer as outlined below:

v Install the sterilizer on a flat and level surface.
v The MAX weight of the sterilizer with the water tank full and the chamber fully loaded is: 48Kg / 75Kg.
v Leave a gap of 15 cm at the back and 10cm on each side of the sterilizer to ensure adequate ventilation.
v Do not place the sterilizer near a sink or in a location where it is likely to be splashed.
v Install the sterilizer in a well-ventilated room.
v Keep away from all sources of heat.
v The above of the sterilizer should be reserved needed space when adding water,>30cm.
v Notice! This product can't be put on the place that is not easy to cut off power Supply.

4.2 ELECTRICITY SUPPLY

The electrical installation must comply with the current standards in the country.



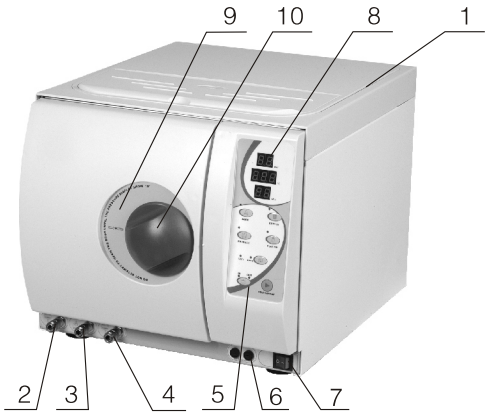
USE CONDITION:
Power supply:230VAC，50Hz
Power supply electric current: 10A
Ambient temperature:5℃～40℃
Relative humidity:≤85%
Atmosphere pressure:860Hpa～1060Hpa
An earth connection is essential

Caution: The sterilizer must be connected to an electrically earthed plug. Used only the mains cable delivered with the sterilizer.

5. DESCRIPTION

5.1 FRONT VIEW

Steam Sterilizer



1. Filling Water Port(manually)
2. Drainage Port(For Used Water Tank)
3. Filling Water Port(Automatically)
4. Drainage Port(For Main Water tank)
5. Operation panel
6. Fuse
7. Power Supply Switch
8. Displaying Window
9. Alert slogan
10. Door Handle

5.2 REAR VIEW

12. Fan
13. Printer Port
14. Electrical Outlet
15. Nameplate
16. Relief Valve

Nameplate:
The sterilizer model
Nameplate serial number
The sterilizer code and year
The sterilizer's type
The chamber's capacity
Power/ Voltage/ Current/ Frequency
Company name and address
EC-Representative name and address

sterilizer chamber:
Material: stainless steel (for medical)
Max. Work Pressure: 2.5 bar
Min. Work Pressure: -0.9 bar
Max. Temperature: 145 ℃
Chamber volume:12L (Φ192×320MM) 18L (Φ245×320mm) 23L (Φ245×450mm)

sterilizer steam safety valve:

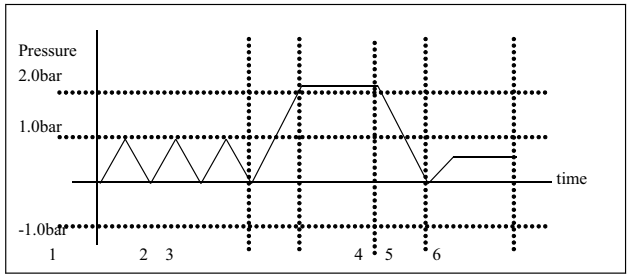
Safety release pressure: 2.45 bar

Max. Working temperature: 160 ℃

5.3 MAIN TECHNICAL SPECIFICATION

1) Inner capacity: 18L（Φ245mmX352mm）23L (Φ245×450mm)
2) Rated Voltage: AC220V~230V,50Hz
3) Rated power: 1500VA
4) Pressure/Temperature: 0.90～1.30bar/121℃~122℃；2.00～2.30bar/134℃~135℃
5) Fuse: T10A
6) Water storage tank capacity: 4L，must use distilled water! And water temperature must under 40℃。
7) Water volume for one cycle: 0.16L（min）0.18L（max）
8) Operation temperature: 5～40℃
9) Outside size:12/18Liters,441mm（width）X389mm（height）X567mm(depth)；23liters, 441mm（width）X389mm（height）X667mm(depth).
10) Net weight: 12L, 43KG; 18L, 47KG; 23L, 55KG
11) The board affording weight:4000 N/m^2
12) Noise:<45db
13) The maximum capacity of a plate:1000g
14) Water storage tank cleaning and the frequency of water adding: clean the water storage tank once per half a month, you need to add fresh water after every 20 cycles generally.
15) The frequency of water draining: once a day, drain the water once you find "in" light indication is during operation.
16) The maximum duration of using loading test: 60min.
17) The maximum thermal radiation energy under the condition of 20℃~26℃:<2000J.

5.4 THE STERILIZATION CYCLES



1-2 pre-heating　　2-3 Heating

3-4 sterilizing　　4-5 air-discharging

5-6 drying and stabilizing　　1-6 entire duration

TableTypes of sterilization cycles

Type	Description of intended use
B	The sterilization of all wrapped or non-wrapped, solid, hollow load products type A and porous products as represented by the test loads in this standard.
S	The sterilization of products as specified by the manufacturer of the sterilizer including non-wrapped solid products and at least one of the following: porous products,small porous items, hollow load products type A,hollow load products B, single wrapped products, multiple-layer wrapped products.
NOTE 1	The description identifies ranges of products and test loads.
NOTE 2	Non wrapped sterilized instruments are intended either for immediate use or for non sterile storage, transport and application (e.g. to prevent cross infection).

6. PANEL AND FUNCTIONS（pic 6-1）

6.1 DISPLAY PANEL

6.1.1 Pressure display

Indicate current chamber pressure during a cycle. Unit is bar.

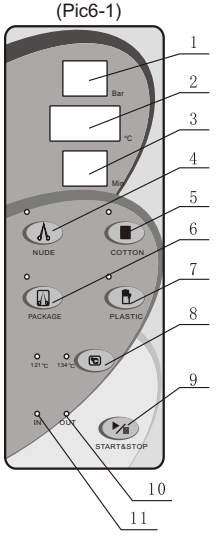
6.1.2 Temperature display

Indicate current chamber temperature during a cycle. Unit is℃

6.1.3 Phase/ Error cord display

Indicate the kinds of phase for sterilizer during operation, refer to the appendix (Operation Phase Chart). When the sterilizer begins to alarm, a corresponding error code will be displayed. Check the malfunction parts according to the alarm cord and handle form. (When it goes wrong, please contact with the repair shop or dealer promptly)

(Pic6-1)



6.2 CONTROLLING BUTTON

6.2.1 〃NUDE〃 button

Designed for process unwrapped instruments at 121℃ or 135℃, default 135℃. Illuminating when selected.

6.2.2 〃COTTON〃 button

Designed for process cotton yarn instruments at 121℃ or 135℃, default 135℃. Illuminating when selected.

6.2.3 〃PACKAGE〃 button

Designed for process packs of instruments at 121℃ or 135℃, default 135℃. Illuminating when selected.

6.2.4 〃PLASTIC〃 button

Designed for process plastic or rubber instruments at 121℃ or 135℃, default 135℃. Illuminating when selected.

6.2.5 〃℃〃 Button

Press the temperature selection button. When selects two operation temperature: 121℃ or 135℃, the corresponding indicator light will illuminate.

6.2.6 〃IN〃 indicator

Low water indicator, it will illuminate when the level of reservoir water is too low to warn you that water should be added in.

6.2.7 〃OUT〃 indicator

Water full indicator, it will illuminate when the waste water level is full, to warn you that water should be drained out.

6.2.8 〃START/STOP〃 button

When pressed, initiates the program cycle that has been selected. Keep pressing it for 5 seconds during a program cycle any time, the cycle will be terminated absolutely during the progress.

6.2.9 〃〃Button

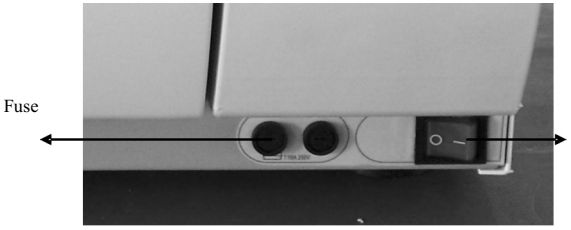
Self-fill button. Press to start the water pump when the sterilizer needs to add water. And will automatically shut-off when the reservoir is full.

Caution: Please contact your distributor or authorized people when error code Displayed.

7. OPERATION PROCESS

7.1 POWER ON

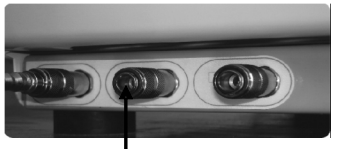
Please connect the power cord before you start the operation. The power switch turns power to the unit on and off. It is located under the right front corner of the sterilizer (pic 7-1). When you turn the power on, the sterilizer is at originally state. It will indicate 〃LD〃 on the state display window. If it indicates 〃Do〃, even you push the starting button it won't working. You have to open the door first, the window will indicate 〃LD〃 which means ready, and then keep on the next step (pic 7-1)



(pic 7-1)

7.2 DISTILLED WATER ADDING

After you connecting to the power and select the corresponding program, if the 〃IN〃 indicator light illuminates, which means the water in the water storage tank is of its lowest level and you have to add water in. And even you press〃start/stop〃 button, it will not work either, so you need to add distilled water in until the lowest required level can be reached. You can fill in water automatically or by manual on the top of the machine. Automatically: Connect the water tube with the machine left lower corner inlet connector as right picture arrow marked, please see the pic 7-2. And press 〃〃 button; by manual: open the top cover and fill in distilled water, stop filing water in when you hear beep sound. If the water shortage gives an alarm during the sterilizing, you should not worry about it, the water will not influence this process. And the adequate water should be left in the tank for the operating cycle, but you need to add water in time, so as to ensure the next operation.



(pic 7-2)

Caution: (1) Use distilled water only to extend the life time of the Machine.
(2) Do not tilt the sterilizer when the reservoir is full of water.

7.3 ALARMING IF USED WATER RESERVOIR IS FULL

The "IN" indicator light illuminates during the sterilizing, which means that the used water storage tank needs to be drained because of full enough.

Connect the water tube to with the machine left lower corner inlet connector as right picture arrow marked, please see **pic 7-3**.

(**Pic 7-3**)

Water has been drained when it reaches the maximum temperature, nearly 70℃, if it is higher, you need to check whether the fan operates normally, or contact the local distributor immediately, we will offer our best service to you in no time.

7.4 SELECTING STERILIZING PROGRAM

Select the required sterilization program and temperature which you need. When you choose, the corresponding indicator light will illuminate. After the sterilization program being selected, the temperature will be automatically set as default model. It is recommended that should not be changed except for special processing.

7.5 LOADING INSTRUMENT

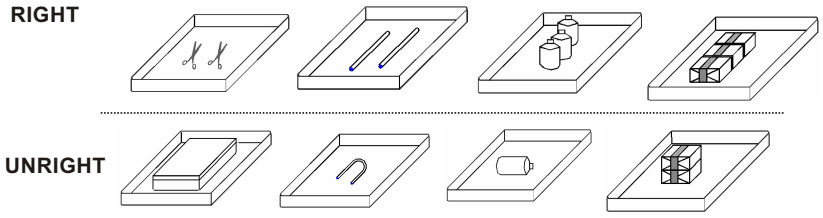
Sterilizing instruments should be put in the instrument plates, and keep enough space between each instruments to ensure the steam can be ventilated freely. Please use the attached hands clip to send the instrument plates into the sterilizing house to avoid scalding .（pic 7-5）

（**pic 7-5**）

Arrangement on Trays before Sterilization

1 Read the following instructions for proper usage and maintenance of instruments and material.
2 Make sure that the instruments of different materials are separated and placed on different trays.
3 Insure the carbon steel instruments, place a towel or paper-wrap between the tray and the instruments in order to avoid direct contact between different materials.
4 All the instruments must be sterilized in an open position.
5 Make sure that the instruments remain apart during the sterilization cycle.
6 Do not overload the trays in order foe items to be properly sterilized & dried.

DRAWINGS EXPLAIN:



Caution: Recommended to clean the instruments before loading.

7.6 Closing the door

Close the door after loading the instruments which need to be sterilized. "LD" will be showed and will be not appeared anymore when latch the door handle fully. When close the door, however, the chamber is warm and steam still be left in it, you may feel a strong resistance when you close the door. You just have to push harder and latch the handle completely. You may also leave the door open to release the steam and kindly close the door again. Or you can push the door in while you turn the door handle. Anyway, latch the door handle completely If you still unsure the door has been closed properly. You can also adjust the door (refer to adjusting the sterilizer door)

Attention: The "LD" code will be appeared if the door hadn't been closed fully,thesterilizer will not run unless the door has been closed completely. If the door has been opened during the cycle, the sterilizer will display error code "E6". If so, please press the "Start/Stop" to cancel the alarm, then close the door completely and restart.

7.7 Starting a working cycle

The door is closed completely, then you can press 〃Start/Stop〃 button to start a working cycle. The sterilizer brings to you or go to do some other work. The sterilizer will heat and sterilize and drying the instruments automatically for you. The whole process will take 20-50 minutes. It depends on the object being sterilized, the initial temperature, and the program you selected.

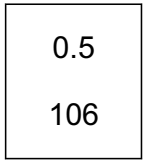
The Process of Sterilization

Pre-heating: Display HE.

Chamber will start to be pre-heating when you are turning on the power switch, and keeping the chamber warm.

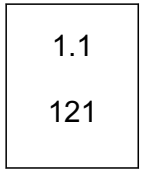
Heating: Display HE.

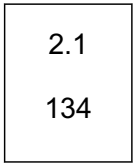
Keep heating until getting the time of sterilization.



Sterilization: Display TIME.

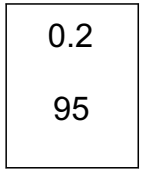
Display sterilizing time and temperature. The sterilizer keeps the temperature of sterilization with time is counted down.





Drying: Display PL OR TIME

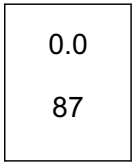
Releasing pressure until the pressure down to the 0 bar or-P



Display drying time and the temp. Draining used water and steam. Sterilizer will automatically switch to drying process after the steam pressure drop and chamber temperature down.

End: Display ED.

The buzzer make a sound means the total sterilization processes have been finished, then wait for the pressure down to 〃0〃 bar at the steam manometer on command front panel.



7.8 End of the sterilization working cycle.

When working cycle has been finished, the 〃ED〃 will illuminate and give you a sound of alerting. Then you can open the door and take the sterilized instruments out.

When the door of sterilizer has been opened, the program of digital model will return to the initial state, heat-preserving and waiting for next sterilizing program, before start a new program it will be kept in a heat-preserving condition all the while.

Attention: After sterilizing has been finished, please use the matched instrument hand clip totake the instrument plates out from sterilizing house. It will be better to take out the instrument plates when the instruments have been cooled down to avoid scalding.

7.9 Power off

When won't use the sterilizer, turn off the power switch, the power switch light will be turned off. When the sterilizer hasn't been used for a long time, unplug the power cord.

Attention: During the sterilizing, we suggest you that you should use the special paper which can indicate the effect of the sterilization or sterilization bag which has the effect indication of sterilization, put them in the chamber together with the sterilizations in order to ensure reliability of sterilization.

Warning: When the pressure indicator does not show "0 bar", don't try to Open the door please.

8. Essential Information

This product is not a washing / cleaning machine simply. To ensure the sterilizer continues to operate correctly it is important to ensure the following points and to carry out the necessary care and maintenance procedures as specified.

8.1 PLEASE ENSURE THE FOLLOWING . . .

1 You have read and follow these operating instructions.
2 The load is suitable for sterilizing in the cycle selected.
3 The load can be sterilized at the selected temperature.
4 The load has been cleaned.
5 The load has been rinsed thoroughly with clean water prior to sterilization to avoid Any chemical residues left after cleaning contaminating the sterilizer.
6 When placing instruments on trays, ensure that they are placed on the ribs of the tray (to help drainage), they must not touch each other and must not interfere with other trays or the chamber above.
7 Only distilled, deionizer or sterile water can be used.
8 The sterilizer is in a draught free area.
9 The sterilizer is not installed in an enclosed cupboard space.
10 All other exterior product panels are 50mm clear of adjoining surfaces to allow air Circulation.
11 The door is left ajar when not in use.
12 You quote model/serial number (which are located on the rear case just above the mains power cord entry) and date of purchase in all correspondence.
13 Only qualified person service the sterilizer.

8.2 AND PLEASE DO NOT...

1...lose this handbook.
2...add any chemicals whatsoever analogous water to the sterilizer
3...attempt to sterilize volatile substances, toxic materials or other unsuitable loads. Refer to your "Responsible Person" for advice.
4...Place the sterilizer in direct sunlight
5...Place the sterilizer on heating sensitive surfaces.

6...use inappropriate cleaning materials.
7...drop or abuse the sterilizer.
8...use in areas of risk associated with flammable materials or gases
9...remove the casing or attempt to service or repair this sterilizer.

9. MAINTENANCE

9.1 MAINTENANCE SCHEDULE CHART

Maintenance Required	Person Responsible
Daily	
Clean Door Gasket	User
Clean Chamber	User
Weekly	
Clean Chamber, Trays and Rack	User
Clean Water Draining Filter	User
Monthly	
Clean Reservoir	User
Yearly	
Performance Verification and maintenance	Qualified service personnel
As Required	
Change Door Gasket	User

9.2 DAILY MAINTENANCE

Cleaning Door Gasket

The door gasket and the mating surface should be wiped off each day with a clean, damp cloth. Do not use abrasive cleaners on the gasket or mating surface.
Use warm soapy water for keeping marks of sterilizer persistent, but ensure any soap residues are completely removed by wiping both the gasket and the vessel again with water using a lint free damp cloth.

Caution: Refer to qualified personnel for servicing; never use a wire brush, steel wool, abrasive material, or chloride-containing products to clean door and chamber assembly. " Caution hot surface. Avoid contact." ensure that the sterilizer is cooled down fully before cleaning to avoid scalding.

Cleaning After Liquid Loads

Biological media tends to boil at a higher rate than other liquids during venting. It results in media to be spattered inside the chamber. Therefore, the chamber must be cleaned daily when you are sterilizing media. Cleaning as follows:

1）Allow unit to be cooled down.
2）Wipe out chamber and door with a clean, damp cloth.

Caution: Failure to keep the interior of the stainless steel chamber free of mineral deposits and debris can cause premature failure of the sterilizer.

9.3 WEEKLY MAINTENANCE (MORE OFTEN IF NECESSARY)

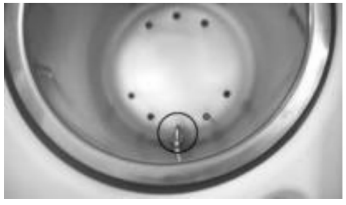
Cleaning Chamber, Trays and Rack

At least once a week, the trays and tray rack should be removed from the sterilizer chamber. The trays, tray rack and chamber should be thoroughly cleaned to remove any deposits from the surfaces.

Clean the trays, rack and chamber (especially the bottom of the chamber) with appropriate antibiological cleaners. Wipe all residues from the surfaces with a dampened, lint-free cloth.

Warning: To prevent from collection of mineral deposits and corrosion of chamber components, use distilled or deionized water only as specified. Clean Chamber after each use if sterilizing saline solutions.

Cleaning water draining filter (pic 9-1)



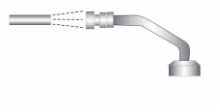
（**pic 9-1**）

Water draining filter might has been jammed by some dust because of use for a long-term, so effect of drying would be influenced. Some tiny impurity might be deposited on the filter after a long-term use, blocking the filter, so as to influence the effect of the drying and water discharging. The kinds of impurity come from smeary dust on the instruments being sterilized or some calcification in the water.

Keep cleaning of the inside chamber in order to make life-time of filter much longer; please take the following advice for consideration:

1）Use eligible distilled water;
2）The instruments should be cleaned before placing in; it is good to use specified packing for the instruments with oil or other impurity, don't forget to seal up.
3）Keep the sterilizing chamber tidy. Once the water draining filter jammed, the solution has been showed in pic 9-2, would be recommended. As for the filter's blockage，you can follow the methods have been showed in pic 9-3, after it cooling down as The Picture shows.

（**pic 9-2**）
Broiling filter alcohol



（**pic 9-3**）
Blow with a high pressure air-pump

9.4 MONTHLY MAINTENANCE

Cleaning Reservoir

There are some impurities and some toxins had been left behind in the reservoir because distilled water had left behind for a long time, so you need to drain and clean regularly. According to the picture which shows below, loose the screw by screw-driver, and open the cover to clean inside. As **pic 9-4** shows.

（**pic 9-4**）

Attention: (1) Be sure that use distilled water properly in order to extend the Sterilizer life-time.
(2) Do not rave about the sterilizer when the tank has been filled.

Do not add more than 7 liters of water to the reservoir after cleaning.

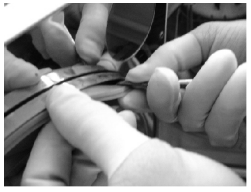
9.5 MAINTENANCE TO BE DONE AS REQUIRED

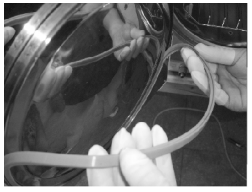
Changing Door Gasket

Tool: a plain screw driver without sharp head is needed.

Disconnect the sterilizer from the power supply. Ensure that the sterilizer is cool and depressurized.

1) Hold verge of the seal by one hand softly, and another hand should be inserted the screwdriver into the gap between gasket and door, take out the seal slowly.
2) Once you take out one part of the seal, you can draw out the whole seal slowly. After taking out the seal, please check and clean the groove of gasket, so does the gasket, please replace the gasket if there is some damage.
3) Fix the clean gasket in initial door groove. Attention: the gasket should be imbedded in the groove equably. At first, please imbed the 4 spots equably into groove when fix the gasket, and then embed the other parts. After that, press the gasket equably by hand.
4) Attention: the inner edge of gasket may be ectropium during embedding it in the door groove , at this time; you'd better to tight it back to the groove by using the screwdriver carefully.


(1)


(2)

(3)

(4)

10. SERVICING BY THE APPROVED TECHNICIAN

Service is essential for consistently effective sterilization.
We recommend servicing by an approved technician every 2 years.

CHECK-LIST:

1 Checking the Electro-valves.
2 Checking the water pump.
3 Checking the distilled water drain valve and the used water drain valve.
4 Checking the relief valve.
5 Checking the door locking system.
6 Checking the probe of the pressure and temperature.
7 Checking the probe of the water in the sterilization chamber.
8 Checking the electrical connections.
9 Checking the hydraulic connections.
10 Checking the safety thermostat.
11 Cleaning the sterilization chamber.
12 Cleaning the trays and the tray holder.
13 Cleaning the reservoirs.
14 Replacing the water filter.
15 Replacing the door gasket.

11. Delivery and storage

11.1 PREPARATION BEFORE TRANSPORTATION AND STORAGE

Shut off the power switch, unplug the cord, and make the sterilizer been cooled down completely.

11.2 DRAINING

Drain water from reservoir and the condensate collector completely: insert the joint end of the attached tube to drain connection. (The spout on the left is the water spout used for the "used-water out", the one on the right is used for the "clean-water" drain spout)

11.3 CONDITIONS FOR STERILIZER'S TRANSPORTATION AND STORAGE

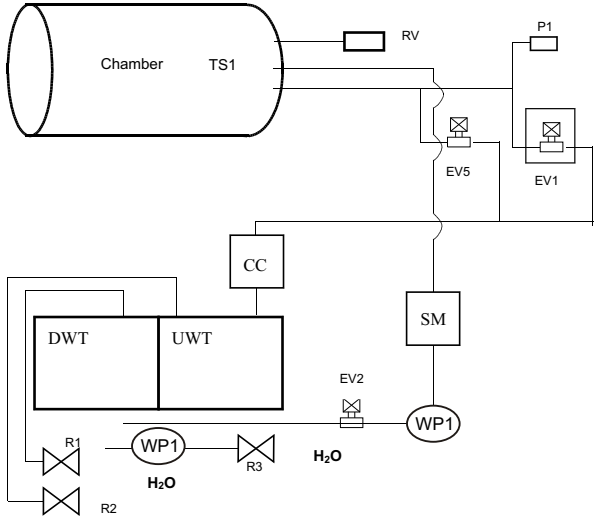
Temperature: -5 ℃ ~ +55℃

Relative Humidity: ⩽85%

Atmospheric pressure: 500HPa~1060HPa

12. ELECTRIC AND HYDRAULIC DRAWINGS

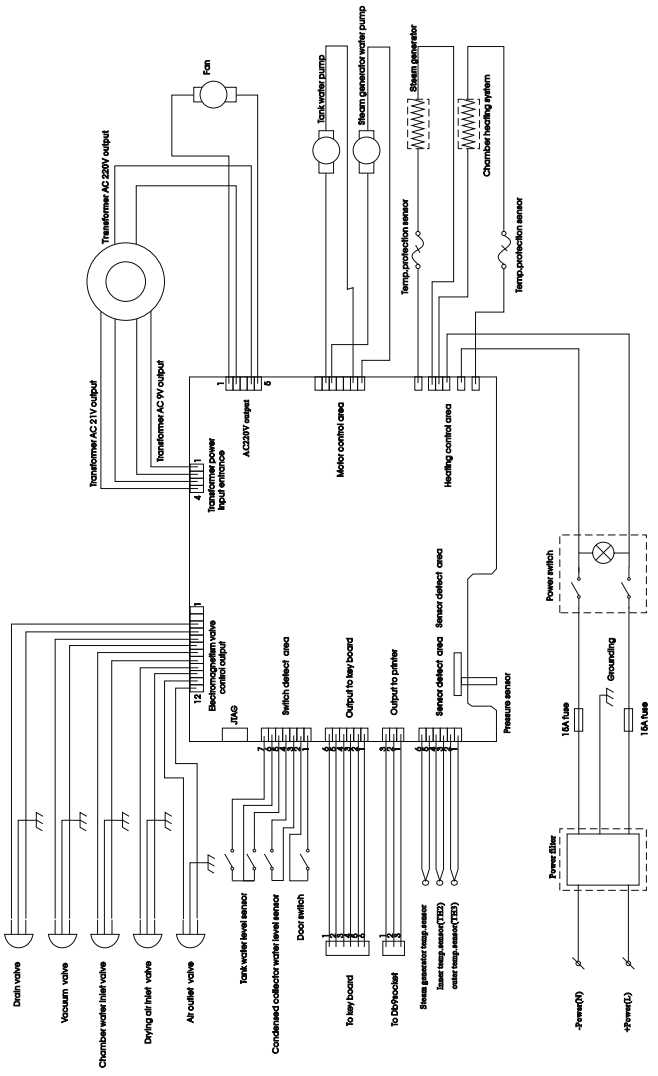
12.1 HYDRAULIC DRAWING



UMT	The Used Water Tank
DWT	The Distilled Water Tank
EV1	Air Outlet Valve
EV2	Chamber Water Inlet Valve
EV5	Drain Valve
P1	Pressure sensor
P1	Pressure sensor
SM	Steam Maker

WP1	Main Water Pump
Wp2	Add Water Pump
CC	Condensate Collector
RV	Relief Valve
R1	Distilled Water Drain Valve
R2	Used Water Drain Valve
R3	Water Adding Valve
Ts1	Temperature Sensor

12.2 ELECTRIC DRAWING



13. The standards of testing

NO.	Testing item	Request of standards
1	Shape	The shape of sterilizer should be tidiness and mustn't have the disfigurements, such as deflection, hollowness, collision, nick, sharp edge, and so on.
2	Outer-veil	The outer-veil should be assured to disassemble easily in order to repair the equipment.
3	Letter marker	The letter marker in panel of sterilizer should be legible.
4	Electroplate components	The Electroplate should accord with YYOO76-19 92 class 2, which for the request of aspect.
5	Printer components	The Printer components should accord with Yy1055 -1999 the class Ⅱ which for the request of aspect.
6	Door safe lock	On the normal condition, if the sterilizer door hasn't been locked tightly, the program can not start.
7	Chamber Pressure	The door should ensure that the door can't be opened when the chamber pressure over than 0.027Mpa.
8	Relief Valve	Sterilizer have to install relief valve, when the pressure range from 0.27Mpa± 0.01Mpa that the relief can be opened, and when arrive at the setting pressure, the air relief valve will open automatically and discharge pressure.
9	Sterilizing Program	Sterilizer should have the pre-established program about 121℃ and 135℃, dressing and instruments.
10	Controlling system	The control system in sterilizer should limit the steam which in the chamber be controlled at the highest average temperature in ±3℃ of pre-establish station. And ensure the temperature value accords with the pressure controlling value.
11	Timing control	It's possible that the sterilization and drying can be timing control, and the windage should be limited that smaller than 10% of pre-establish value.
12	Button and Switch	Buttons and switches should be flexible and reliable on the sterilizer.
13	Indicator and display	The indicators and displays of sterilizer should show the states of every sterilizing procedure exactly. Under the normal situation,sterilizer should indicate: a) Chamber temperature b) Chamber pressure c) Sterilizing work state d) Water level state e) Station of the opening or closing door

NO.	Testing item	Request of standards
14	Leak forbid	The sterilizer can't leak under the work pressure
15	protective earthing impedance	The impedance between protective earthing point of the power input faucet and protective earthing can be touched all metallic parts, doesn't over than 0.1Ω.
16	Successional leakage current under the work temperature	a) Earth leakage current on the normal condition: ≤0.5 Ma the single blooey state: ≤1 mA
		b) Crust leakage current on the normal condition: ≤0.1 Ma the single blooey state: ≤0.5Ma
17	Dielectric strength with Working Temperature	a) A-al: It should bear the sine wave test alternative voltage ,50Hz, 1500v, which between the web power input port and protective earthing can be touched all metallic parts. It lasts 1 min, and hasn't the phenomenon of breakage and flashover
		b) A-a2: It should bear the sine wave test alternative voltage, 50Hz, 1500v, which between the web power input port and the enclosure of which isn't be pretended earthing. It lasts 1 min, and hasn't the phenomenon of breakage and flashover
18	No-load	For all loads except hollow load A, the presence of saturated steam in the usable space and the load is deemed to have been achieved when, throughout the holding time, all temperatures measured in the usable space and the load: (Attention: the theory of steam temperature is accounted by measuring pressure, which can be considered the test temperature.)
		are not lower than the sterilization temperature;
		are not more than 4 K above the sterilization temperature;
		do not differ from each other by more than 2 K.
		The usable place temperature during the no-load can not over than the scope of highest temperature.
19	Hollow load	The hollow load A and B, As for testifying whether the saturation steam existing is relevant to the color change, by distinguish used chemistry direction system whether it was according to the direction system manufacture
20	Dryness, solid load, double wrapped	For wrapped loads, any remaining moisture shall not lead to wet packages and shall not result in detrimental effects on the sterilizer load. Any remaining water droplets on the inner side of the film of laminate pouch shall evaporate within 5 min.
		For load the moisture content shall not exceed 0,2 %